

**IN THE MATTER OF:
T-MOBILE NORTHEAST, LLC
and
J. MAURICE CARLISLE, JR.
Petitioners**

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I. STATEMENT OF THE CASE

Petition No. S-2800 was filed on December 13, 2010, by T-Mobile Northeast LLC and the J. Maurice Carlisle, Jr. Petitioners seek a special exception, pursuant to §59-G-2.58 of the Zoning Ordinance, to construct an unmanned wireless telecommunications facility on a 127-foot tall silo, and an associated equipment area, at 22730 Mt. Ephraim Road, Dickerson, Maryland.

Initially, Petitioners' application proposed a 150' tall concealment pole along with equipment cabinets and compound. Exhibit 3. The Montgomery County Transmission Facility Coordinating Group (TFCG), also known as the "Tower Committee," reviewed the original application on March 3, 2010. The Tower Committee recommended approval of the original application, conditioned upon (1) a unipole-designed monopole as recommended by the Rustic Roads Committee, (2) "either approval of a monopole for less than three carriers if requested by the applicant, or a monopole designed to accommodate three carrier's antennas and ground equipment", and (3) the applicant obtaining a special exception from the Board of Appeals. Exhibit 8.

On January 6, 2011, the Board of Appeals issued a notice that a hearing in this matter would be held before the Office of Zoning and Administrative Hearings on March 21, 2011. Exhibit 13(a). At T-Mobile's request, this hearing was rescheduled to Friday, May 20, 2011. Exhibits 15, 16. On April 29, 2011, the Applicant submitted an amendment to the original application, which proposed to move the facility by approximately 1,100 feet from its original location much closer to Mt. Ephraim Road, reduce the height of the facility to 127 feet, and change the design of the support structure from a concealment pole to a silo design. Exhibit 17(a). According to the Applicant, the purpose of the amendment was to address concerns from the community regarding the impact on the views of Sugarloaf Mountain. Exhibit 17.

This office issued a Notice of Motion to Amend (Exhibit 18) on May 2, 2011. In a report dated May 13, 2011, Technical Staff at the Maryland-National Capital Park and Planning

Commission, recommended approval of the application, subject to five conditions. Exhibit 23.

A public hearing was convened as scheduled on May 20, 2011, and Petitioners called three witnesses. Mr. Chris Kendrick, treasurer of the Sugarloaf Citizens Association, appeared to oppose the petition. Mr. Kendrick appeared on behalf of a coalition of groups including the Audubon Naturalist Society of Montgomery County, the Sierra Club, Sugarloaf Citizens Association, and the Montgomery Countryside Alliance. T. 4.

At the beginning of the hearing, the Hearing Examiner raised the question of whether the Tower Committee had reviewed the amended application. Finding that they had not (Ex. 24, 25; T. 23-36), and because the Board must make its own independent finding of need for the facility, the Hearing Examiner referred the amended application to the Tower Committee for the Committee's review of the amended application. Exhibit 45. The Hearing Examiner requested the Committee's recommendation by July 15, 2011. The record was held open until July 29 2011, to provide an opportunity for any responses from the parties to the Committee's report. A hearing date of September 8, 2011, was tentatively scheduled in the event any of the parties wished to present additional testimony or cross-examination based on the Tower Committee's report. T. 147-148.

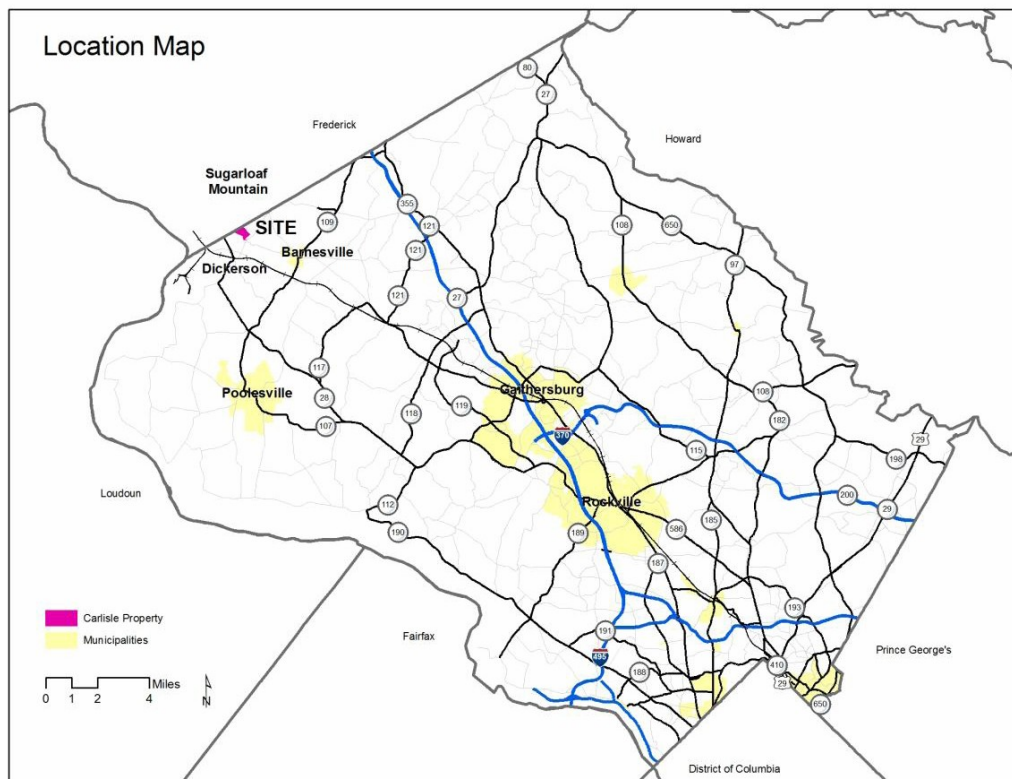
The Tower Committee submitted its report on the amended application on July 15, 2011. Exhibit 51. No further submissions were received from the parties. The record closed on July 29 2011.

Because Petitioners have failed to meet their burden of proof as to the need for the facility, and because the facility is inconsistent with the relevant master plans, the Hearing Examiner recommends denial of the application. Should the Board disagree with the Hearing Examiner's recommendation in this case, the Examiner has included a list of recommended conditions in the event the Board approves the application.

II. FACTUAL BACKGROUND

A. The Subject Property

Located at 22730 Mount Ephraim Road in Dickerson, Maryland, the subject property consists of approximately 92.25 acres, zoned RDT, in the area south of Sugarloaf Mountain and north of Poolesville. Technical Staff included a location map showing the proposed site in their Technical Staff Report (Exhibit 23), shown on the next page. Technical Staff reports that the property straddles the boundary between Montgomery and Frederick Counties; five acres of the property are in Frederick County, but the facility itself is within Montgomery County. Exhibit 23, p. 2.



Consisting primarily of farmland, a tenant farmer grows crops on approximately 50% of the site; the area near a “barn complex” is used by the owner for his soil conservation and septic testing business. Exhibit 23, p. 3. Technical Staff included a 2010 aerial photograph of the property, as

well as a photograph of the barn complex, in the Technical Staff Report (Exhibit 23), shown on the following two pages.

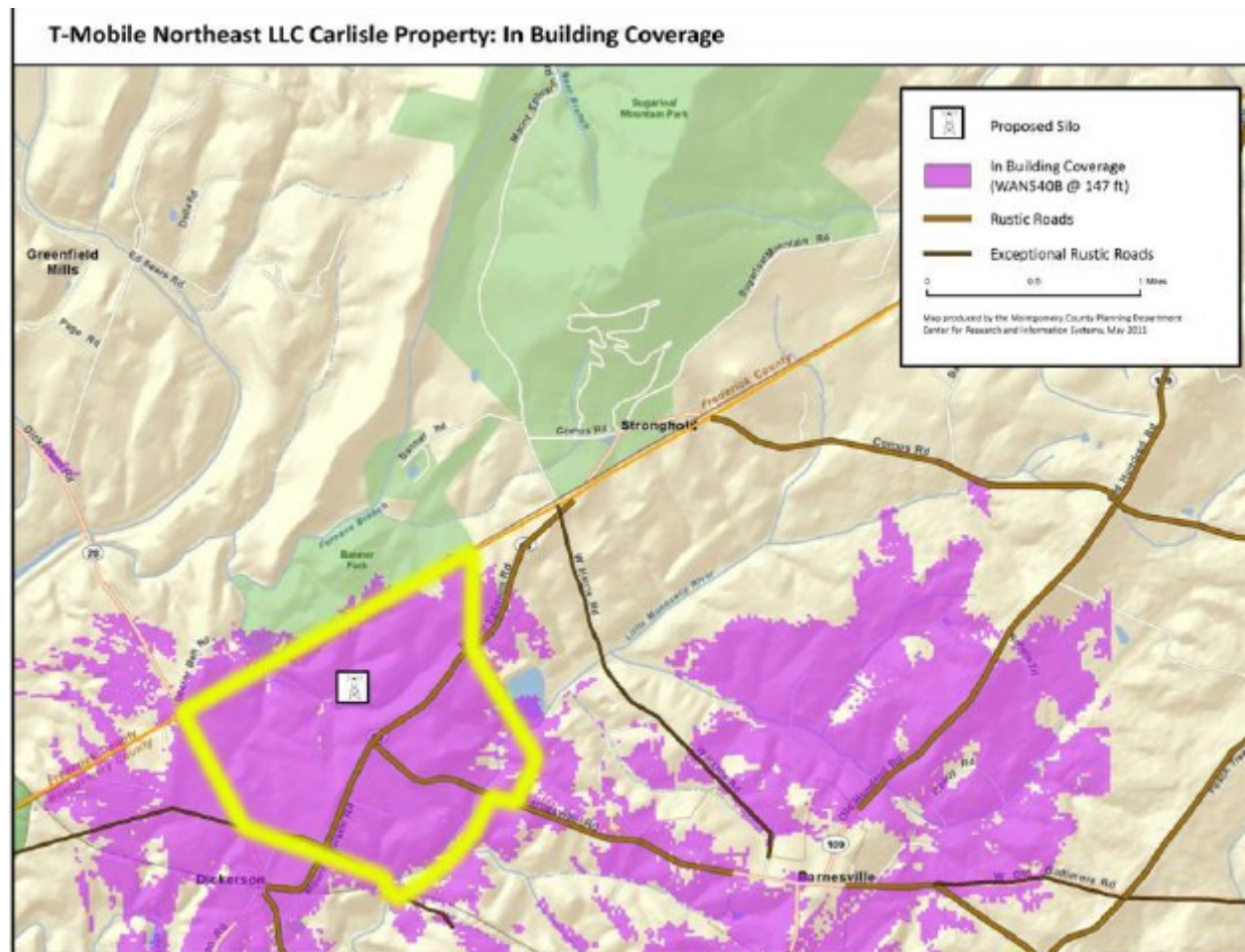
Technical Staff found that the surrounding neighborhood is bounded on the north and west by Frederick County and Maryland Route 28, on the south by the Mouth of Monocacy Road, on the southeast, along property lines running approximately parallel to the Little Monocacy River, on the northeast following the Savage Farm property line to Mount Ephraim Road, then north to the Frederick County line to Banner Park. Staff advises that the neighborhood is dominated by large farms, but also includes some smaller residential properties along Mount Ephraim Road. A map showing “in-building” coverage and the surrounding area (Exhibit 23, p. 4), is shown on page 7.



**Aerial View of Subject Property (above)
(Exhibit 23, p. 3)**



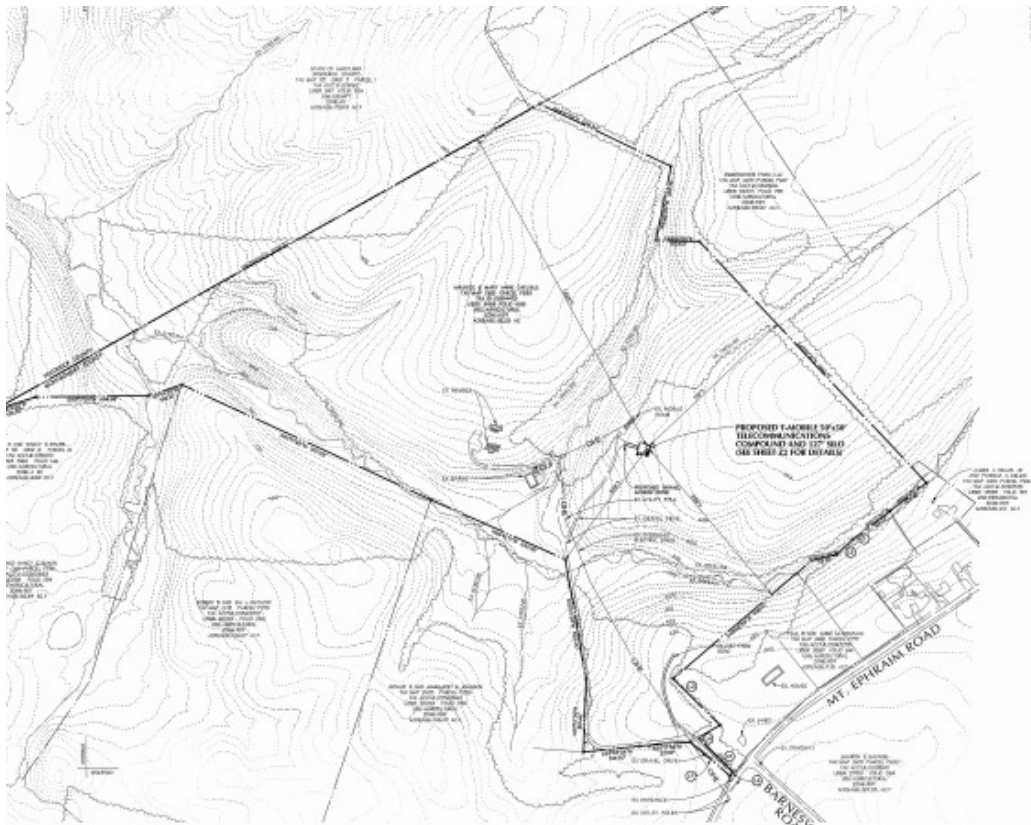
**Barn Complex
(Exhibit 23, p. 3)**

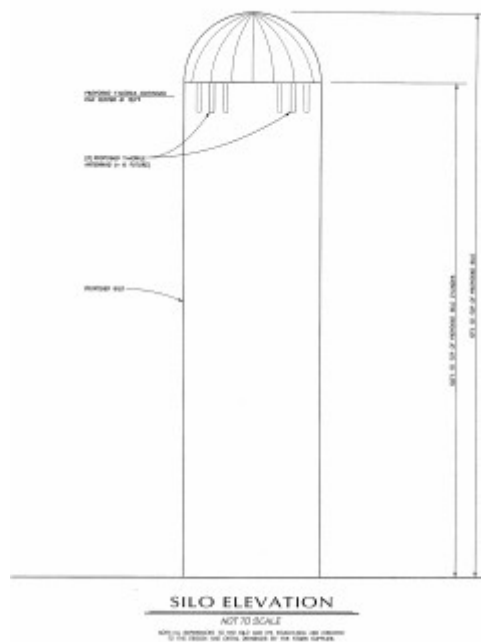


**Surrounding Neighborhood
Exhibit 23, p. 4.**

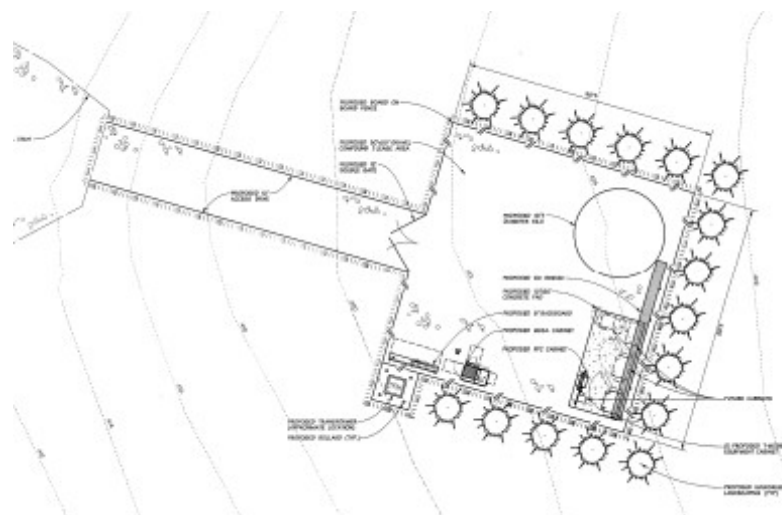
B. The Proposed Use

T-Mobile originally proposed a 150-foot high concealment pole with interior antennas close to Mt. Ephraim Road. Exhibit 20, p. 2. According to T-Mobile, it revised its original design to a 127-foot high silo with three exterior antennas in order to address concerns from the community. T. 95, Exhibit 19, p. 2. The silo will be 18 feet in diameter with three antennas centered at 120 feet. Exhibit 23, p. 5. For the same reason, T-Mobile relocated the tower further from Mt. Ephraim Road, approximately 1,100 feet from its previous location. T. 95; Exhibit 17, p.2; Exhibit 23, p. 17. The amended site plan illustrates the new location of the tower and its relationship to Mt. Ephraim Road as well as its design (Exhibit 31, shown below):





The proposed facility will be constructed with sufficient capacity to hold the antennas of at least three future communication carriers (co-locators) in addition to the antennas of T-Mobile. Exhibit 17(a), p. 2. The 50' by 50' graveled equipment compound will be surrounded by an eight-foot tall board-on-board fence painted to blend with the silo. Exhibits 23, 17(a). Coaxial cables will connect the equipment cabinets to the antennas. Details of the compound from the site plan (Exhibit 31) are shown below:



Although the facility will be unmanned, it will be in continuous operation 24 hours per day. The only visits to the site will be for emergency repairs or regularly scheduled maintenance, which, according to T-Mobile, is typically less than one visit one per month. Exhibit 17(a), p. 2. Because the tower is only 127 feet in height, it is not required, nor is it proposed, to be lit. T. 88.

The proposed monopole will contain no signage except a sign no larger than 2 square feet affixed to the support structure or equipment shelter to identify the owner and maintenance service provider, as required by Zoning Ordinance §59-G-2.58(a)(8).

Zoning Ordinance §59-G-2.58(a)(2)(A) requires, in a residential or agricultural zone, that the cell tower be set back a distance of 300 feet from the nearest off-site dwelling. T-Mobile's civil engineer testified that, because the shortest distance to the nearest property line is 598 feet, this requirement is met. In addition, Zoning Ordinance §59-G-2.58(a)(1)(A) requires that the cell tower be set back a distance of one foot from the property line for every foot of height of the support structure in residential or agricultural zones. Given the total height of 127 feet proposed for the cell tower, a 127 foot setback from each property line is required. This setback requirement is also met because, again, the shortest distance to the nearest property line is 528 feet. T. 54.

Technical Staff reports that the property is located at the intersection of two roads, Mt. Ephraim and Barnesville Roads, which are designated as rustic roads under the *Rustic Road Functional Master Plan (1996)*. The impact of the facility on those roads is discussed later in this Report.

C. Impact of the Proposed Facility on the Neighborhood

The most significant issue regarding a telecommunications facility in an agricultural zone is its potential visual impact upon the neighbors and the rural vista. This is particularly the case where, as here, the property is located adjacent to a rural rustic road and directly within the viewshed of Sugarloaf Mountain. Exhibit 23.

Ms. Hillarie Morrison testified that when T-Mobile erects a new monopole, it does a visual test, using a balloon raised to the height of the proposed monopole. T-Mobile then uses computer modeling to simulate what the actual monopole would look like based on its height and the style of the pole. T. 71-72. The balloon tests were taken from the locations shown on the following map (Exhibit 17(e)), shown on the next page. The balloon tests showed that the tower would be visible from five of the locations tested. Photographs of the balloon tests (Exhibits 17(h), 17(i), 17(l), 17(m), and 17(p) in which the tower would be visible, as well of the simulations at that location (Exhibits 17(i), 17(j), 17(k), 17(n), 17(o), 17 q)), are also set forth on the following pages.

Locations of Balloon Tests



Balloon Tests

Simulations



Balloon Tests**Simulations**

Technical Staff made the following comments regarding visibility of the proposed monopole (Exhibit 23 p. 5):

In seeking to reduce the adverse effects of the facility, the applicant proposes to construct a silo which will support the antennas. There are several silos together with barns and other outbuildings in the adjacent stretch of Mount Ephraim Road, so the silo would not be a visual anomaly from the road. From the higher vantage point of Sugarloaf Mountain, the visual comparison of the silos in farm compounds and this silo standing alone would be more noticeable. From that vantage, the absence of livestock and the barn and outbuildings at the bottom of the hill would also be visible.

Recommendation: The earlier recommendation, to use a grain bin rather than a silo to support the antennas, would address the non-inherent adverse effects on views from the scenic overlooks on Sugarloaf Mountain.

Technical Staff found that there were no adverse impacts on transportation, environmental buffers, or historic resources. The special exception petition is exempt from the requirement to file a forest conservation plan. Exhibit 23, p. 14.

The issue of the impact of the proposed monopole on rural vistas is discussed in the next section of this report, in connection with the applicable master plan.

Finally, the FCC regulates radio frequency exposure issues on a Federal level, and local officials are prohibited from deciding, based on health concerns, that a facility is inappropriate, as long as it complies with FCC regulations. Section 704(B) of the Telecommunications Act of 1996, 47 USC §332(c)(7)(B)(iv), provides, *inter alia*, that

No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the [Federal Communications] Commission's regulations concerning such emissions.

T-Mobile asserts in its revised Statement in Support of this application (Exhibit 17(a), p. 1) that “T-Mobile holds a license issued to it by the Federal Communications Commission (“FCC”) to provide personal communication service (“PCS”) throughout the greater Baltimore-Washington, DC metropolitan areas, including all portions and sections of Montgomery County, MD.” Petitioners’ radio frequency (RF) expert, Curtis Jews, testified that if this site is approved, T-Mobile commits to complying with FCC rules and its license regarding radio frequency emissions. Tr. 112.

D. The Master Plan

This facility is within the area covered by two master plans, the *Functional Master Plan for the Preservation of Agriculture and Rural Open Space in Montgomery County* (AROS, 1980) and the *1996 Rustic Roads Functional Master Plan* (RRFMP). Exhibit 23; Exhibit 6(c).

The subject property is located in the Western Sector of the AROS plan, which recommends RDT Zoning for the entire area. *AROS*, p. 56. As justification for this recommendation, the AROS plan notes that, “this western part of the County remains a relatively undisturbed agricultural region”, and that “[t]he predominance of rural and agricultural uses continues for some distance throughout the entire sector, except for the Town of Poolesville.” *Ibid*. While the AROS plan recognized that the area consisted of non-prime soils for crop farming, it nevertheless recommended RDT zoning because the area “has supported a great amount of farming over the years, proving that non-prime soils can be productive and valuable...” *Ibid*. In its report, Technical Staff included the following additional guidance (Exhibit 23, p. 8) from the plan:

- “This Plan focuses on the preservation of farmland but it also tries to establish a policy framework that will contribute to the continuation of farming in the County” (Foreword, p. i, emphasis original).
- The Plan confirms that “a critical mass of active farmland exists in an area defined as the Agricultural Preservation Study Area”.... And recommends the “[p]reservation of critical masses of farmland and rural open space” (Summary of Findings and Recommendations, p. iv).
- “The critical land use issue in this Plan is the loss of productive farmland” (General Objectives of the Functional Plan, p. 8).
- “A significant farm ownership trend that should not be overlooked or underestimated in Montgomery County is the number of part-time farmers that depend, in part, upon non-farm sources of income” (The Agricultural Community, p. 24).
- “Montgomery County still has a large amount of highly productive farmland. Overall, the County has a considerable amount of prime soils... These prime soils, Soil Types I and II, are productive with a minimum amount of land management....Soil Types III and IV, which have more agricultural production problems, are well suited to particular types of agriculture.... Farmland and open space are irreplaceable and valuable natural resources, and should be protected” (The Agricultural Community, pp. 24-25).
- “It is in the public interest to preserve farmland” (Farmland Preservation as a Public Purpose, Overview, p. 27).

- “The one important fact concerning agriculture in this area is that, whatever is currently produced and whatever the ownership pattern now is, the land itself still exists; very little of it has been taken over by non-farm residential uses and thus lost forever as farmland. Although the soil is not considered the very best for crop purposes, compared with other parts of the County, it has supported a great amount of farming over the years, proving that non-prime soils can be productive and valuable especially when accompanied by good land management techniques and new methods of land tillage” (Western Sector Justifications, p. 56).

The tower removes approximately 3,700 square feet from the agricultural operations on the site. Exhibit 23, pp. 7. Technical Staff concluded that the facility *could* be consistent with the AROS plan because of the non-prime soils (as evidenced by the soil and septic business on the property) and because reliable cell phone and broadband service supports farming. Exhibit 23, p. 7. Staff cautioned, however, that its recommendation depended on whether there was a need for the facility and whether additional antennas would be required to meet T-Mobile’s coverage objectives for the area:

...[D]uplicative disturbance of farming operations may make the proposal inconsistent with the AROS plan; in such case, a search for a single location should be initiated. Staff finds that a telecommunications facility on this property can be consistent with the AROS Plan. If it is determined that coverage objectives are met so that a second facility will not be needed, a facility style that serves the existing farming operation, such as a grain bin, is recommended..... Exhibit 23, p. 9.

The need for the facility is discussed in Section II.E of this Report.

Staff also found that the use of a silo design is more consistent with the character of the neighborhood than a monopole because there are a number of silos on existing farms. Exhibit 23, p. 7. Staff also suggested that a design mirroring a grain bin would be more appropriate on the subject property, since silos are primarily used for livestock farming operations rather than crop farming and suggested that the tower be constructed so that it could actually support farming, consistent with the Master Plan. T-Mobile does not propose a silo design that may be actually used farming operation because of safety concerns regarding the proximity of the flammable grain to the equipment. T. 91-92. Nor did T-Mobile accept Staff’s recommendation to design the facility as a grain bin. T. 90.

Technical Staff correctly points out that the County Code establishes the County's Rustic Road Program and places restrictions on both maintenance and construction of improvements on designated rustic roads. *Montgomery County Code*, §49-76, *et. seq.* The program's purpose is to "to preserve as rustic roads those historic and scenic roadways that reflect the agricultural character and rural origins of the County." *Montgomery County Code*, §49-76. The program requires the Council to identify the significant features of a designated rustic road in the applicable master plan. *Id.*, §49-78. The *Rustic Roads Functional Master Plan* (RRFMP) is the vehicle by which the Council has identified rustic roads in the surrounding neighborhood. The RRFMP reiterates the importance of preserving the viewshed in the area covered by the Plan:

When the roads go through pastures or open views to distant mountains or even through short views to farm fields and stream valleys, any additional building has the potential to destroy such a view. It also has the potential to create and enhance scenic vistas. Exhibit 23, Attachment A.

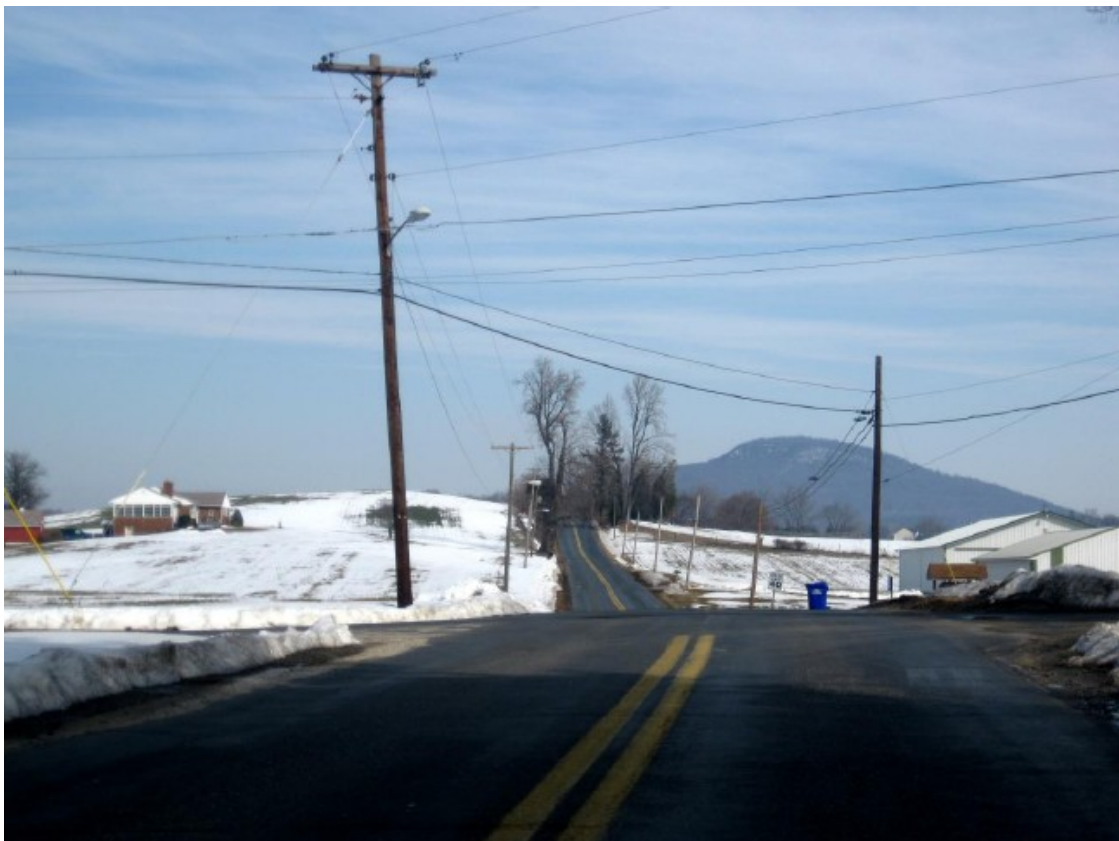
The RRFMP identifies the two roads adjacent to the subject property, Mount Ephraim Road and Barnesville Road, as "rustic roads". Exhibit 23, Attachment A. The Council identified the following significant features of Mount Ephraim Road which should be preserved: (1) its alignment leading towards Sugarloaf Mountain, and (2) it is a ridge road with expansive views. Exhibit 23, Attachment A. The "significant features" of Barnesville Road are identified as (1) the farm road character of the road as it follows the rolling farm fields; its integration with and views of the surrounding farmland, (2) views of Sugarloaf Mountain in the distance, (3) relationship of the road to the buildings of Barnesville, and (4) network connections with other rustic and exceptional rustic roads. Exhibit 23, Attachment A. A photograph taken from Mt. Ephraim Road looking north to Sugarloaf Mountain (included in the Technical Staff Report, Exhibit 23), is shown on the next page.

Technical Staff identified in particular two scenic views along Mount Ephraim Road—one to the west side of the road toward the subject property and a second on the east side of the Road. Staff

advises that, “[v]iews of Sugarloaf Mountain first appear in Dickerson immediately after turning onto Mount Ephraim Road from MD 28, and they continue until crossing into Frederick County, to the north of the property.” Exhibit 23, p. 11.

Technical Staff performed a viewshed analysis comparing the 150-foot pole originally proposed with the 127-foot high silo design. Based on the analysis, Staff found that the silo design caused a reduction in the visual impact of the tower. Because of the importance of the viewshed, however, Technical Staff again conditioned its approval whether the facility was needed:

If the proposed 127-foot silo provides sufficient coverage for at least three carriers such that a second tower will not be needed within the viewsheds identified in the Plan, then staff would find this proposal to be consistent with the Rustic Roads Functional Master Plan. Exhibit 23, p. 13.



**View of Sugarloaf Mountain from
Mt. Ephraim Road
(Exhibit 23, p. 10)**

The Rustic Roads Advisory Committee (RRAC) reviewed the amended application, and took the same position. It stated:

We appreciate that T-Mobile has modified their original plans and has moved the tower further back from the road and is disguising it as a silo. However, given the sensitive Sugarloaf viewshed in this area from both Mt. Ephraim Road and Barnesville Road it is critical that this tower provide the total coverage needed in this area, specifically for Barnesville Road where it crosses Little Monocacy River. A second tower in this viewshed must be avoided.” Exhibit 21.

E. Need for the Proposed Facility

Technical Staff chronicled the history of several attempts by T-Mobile to improve its coverage in the area surrounding Sugarloaf Mountain, including the changes to the subject application shown below (Exhibit 23, p. 17):

| Date | Location | Description | Tower Committee | Notes |
|---------------|----------------------------|---|---------------------------|--|
| May 2009 | Dickerson Auto | Attach antennas to an existing 199-foot monopole | Recommended | This use is permitted by right in the I-1 zone |
| March 2010 | Carlisle property – front | 150-foot monopole in a 25'X35' compound | Conditionally recommended | Unipole design recommended; possibly room for other carriers |
| December 2010 | Carlisle property – front | 150-foot unipole in a 50'X50' compound | Not reviewed | |
| April 2011 | Carlisle property – middle | 127-foot silo in a 50'X50' compound approximately 1,100' from previous location | Not reviewed | |

In its original Statement of Justification for a 150-foot unipole on the property, T-Mobile identified its coverage objective to be (1) enhanced coverage to the Mount Ephraim Road area and beyond, (2) to close coverage gaps throughout the area, (3) to improve in-building coverage in the area, and to provide in-vehicle coverage to Mount Ephraim, Harris and Barnesville Roads, and (4) improving on-air coverage. Exhibit 3. During its review of the original application, Tower Committee Staff requested coverage information about the orientation of antennas from the

Dickerson monopole to see if redirecting those antennas might better meet the new coverage goals. T-Mobile did not provide that information. Exhibit 49(a). Ultimately, the Committee recommended approval of the original location in its March, 2010, report. In so doing, the Committee found that the found that the Dickerson monopole no longer qualified as a co-location opportunity because T-Mobile had revised its coverage objective. The Committee's Tower Coordinator concluded (Exhibit 8) as follows:

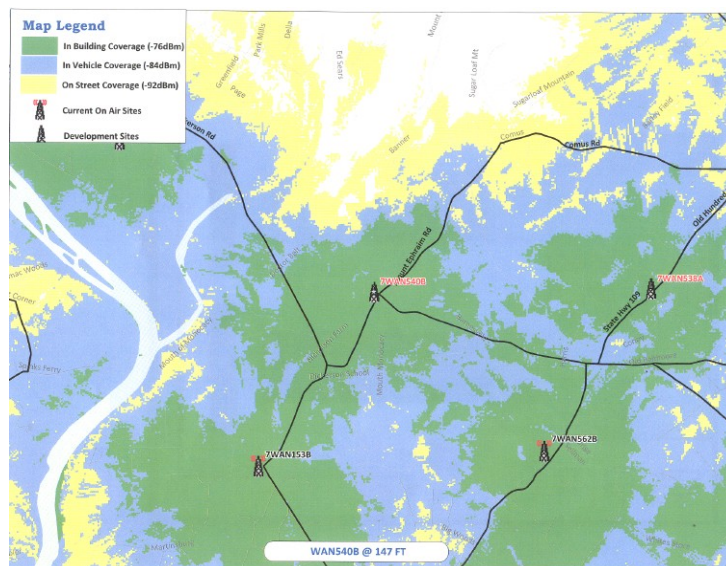
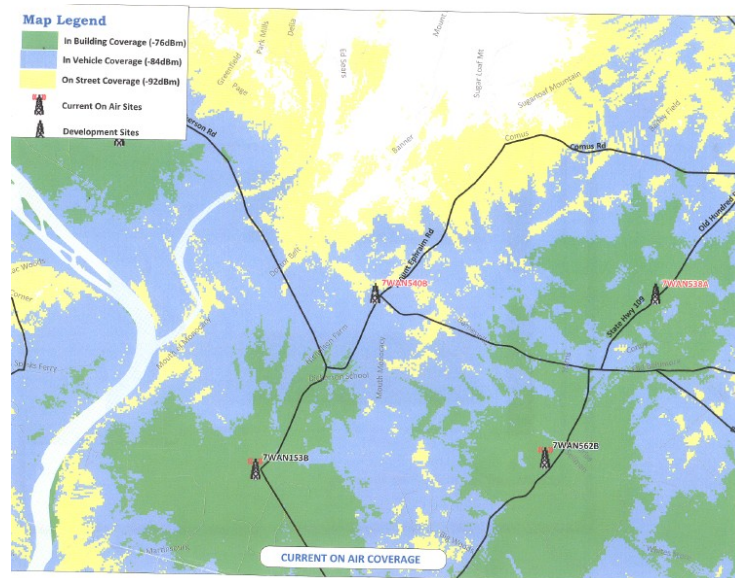
T-Mobile filed an application to attach antennas to the monopole at the Dickerson Auto property approximately a mile to the southwest of the Carlisle property. That application (TFCG #200904-09) was reviewed and recommended by the TFCG in May 2009. At that time, the reported coverage objective, in general, was to improve service along the Mouth of Monocacy Road, Dickerson Road and Big Woods Road, all roads which converge in Dickerson near the monopole. With this application for a new monopole, the applicant now reports that because they have changed their service improvement objectives for this part of the County they have determined that the Dickerson Auto monopole will not meet the new coverage objective, which is generally to improve service over a much wider area a mile north and east of the Dickerson Auto monopole site.

The Tower Committee recommended approval of the original application (150-foot monopole located approximately 1,100 feet closer to Mt. Ephraim Road) subject to the condition that the T-Mobile utilize a monopole design, that the Board of Appeals approve the special exception, and that the facility be designed to accommodate three (3) carriers. Exhibits 4(a), 8, 23, p. 17.

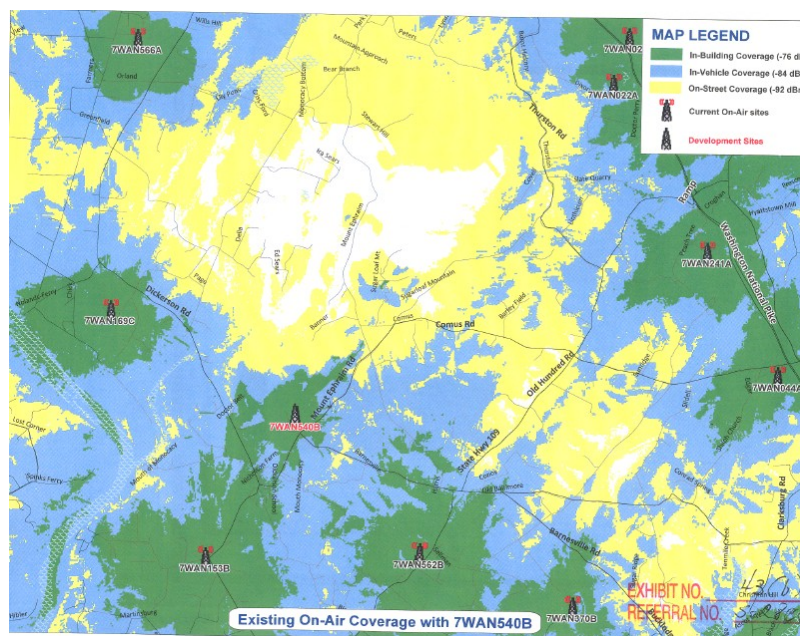
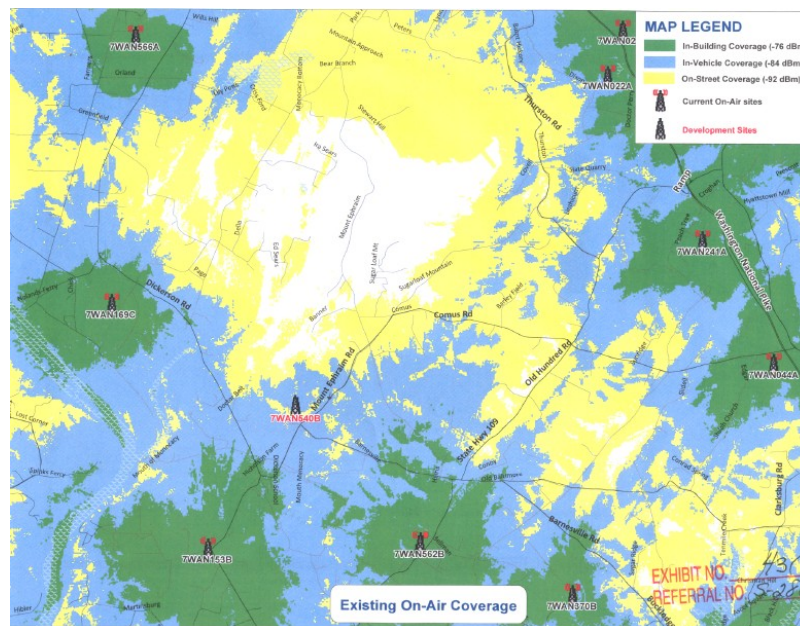
After the Tower Committee issued its report on the original location, T-Mobile submitted revised coverage maps in support of the amended petition for the 127-foot high silo; however, it did not provide the revised maps to the TCFG nor did it request the TCFG to review the revised application. Ex. 43. In defense of its position not to submit the revised maps to the TCFG, T-Mobile introduced an e-mail chain between Ms. Morrison and the Chairperson of the Tower Committee, Ms. Marjorie Williams. Exhibits 24, 25. An e-mail from Ms. Morrison dated April 15, 2011, to Ms. Williams advised her that the application had been amended. In response to an inquiry from Ms. Williams as to whether a new application had been filed, Ms. Morrison replied:

This is already before the Board of Appeals. We do not need a new recommendation from you. We provided the change in location, height and design for information purposes so the Bob [the Tower Coordinator] could update the database. Exhibit 24.

At the public hearing, T-Mobile relied the March 10, 2010, TCFG report on the original application to support the need for the revised (127-foot high silo) application. Exhibit 8. A comparison of the original coverage maps (for the 150-foot pole) and those supporting the revised application (for the 127-foot silo), are shown below and on the next page (Exhibits 43(a) and (b)).



**Original Existing (top) and Projected (bottom)
Coverage Maps for 150-foot Tower (Exs. 10(a) and (b))**



**Existing (top) and Projected (bottom)
Coverage Maps for 127-foot Silo
(Exhibits 43(a) and 43(b))**

With regard to the need for the facility, Technical Staff stated:

The December 2010 application is consistent with the Tower Committee's recommendation, though the applicant had indicated that the unipole design would not meet their coverage objectives. The April 2011 application is 23 feet lower than

the previous one, a silo design rather than a monopole or unipole, moved approximately 1,100 feet away and is now about 900 feet further from the low area on Barnesville Road that was one of the coverage objectives. Exhibit 23, p. 17.

Technical Staff also observed the difference between the two sets of coverage maps: “[T]o the untrained eye, there appears to be a gap in coverage along Barnesville Road near the Little Monocacy bridge.” Exhibit 23, p. 19.

Section 59-G-2.58(a)(12) of the Zoning Ordinance requires the Board of Appeals to make its own independent finding of need for the facility:

The Board must make a separate, independent finding as to need and location of the facility. The applicant must submit evidence sufficient to demonstrate the need for the proposed facility.

Because of this requirement and the difference between the coverage maps for the original and revised application, the Hearing Examiner requested T-Mobile to submit its amended application for the 127-foot silo to the Tower Committee. T. 144-148. T-Mobile objected to this request, asserting that it did not have to refer the maps because the revision is a “minor” change and the tower was still on the same property.¹ T. 7. Because of the “shot clock”, the Hearing Examiner requested the TCFG to complete its review by July 15, 2011. T. 146.

The Tower Committee adopted its recommendations on the revised application on July 13, 2011, and submitted its recommendation along with minutes of its meeting into the record on July 15, 2011. Exhibits 49, 49(a) and (b).

In its report, the Tower Committee advises that the revised coverage maps do not meet T-Mobile’s stated coverage objective, which it described as follows:

The applicant reports that the coverage objective for these antennas is to improve service along Mt. Ephraim Road, Barnesville Road, and [Mouth of] Monocacy Road; to the areas north of Dickerson; and to the residential areas between those roadways

¹ The Hearing Examiner disagrees with T-Mobile’s argument because the statute does explicitly restrict the “need” requirement to all potential locations on a property and to do so would not further the purpose the law. The TCFG and the Board are charged with the responsibility of minimizing cell tower sites by determining whether there are co-location opportunities. Given that the subject property is approximately 100 acres and of hilly terrain, a new location, even if on the same property, could have a significantly different impact on coverage, as is the case here.

in the vicinity of the monopole. Exhibit 8, p. 3.

The Committee summarized the coverage provided by the new location and design as follows:

(Exhibit 49(a), p. 2:

- The area covered with signals for in-building service is reduced from approximately $\frac{3}{4}$ of a mile all around the antennas to an area of approximately $\frac{1}{2}$ mile west and north of the silo, and $\frac{1}{4}$ mile to the south and east.
- Service along Barnesville Road will remain generally no better than what is provided to that area today.
- Coverage with signal levels for in-vehicle service along Mt. Ephraim Road beyond $\frac{1}{4}$ mile to the east will be unimproved over what is provided today.

Because the revised application calls for a silo design, the Committee asked T-Mobile why they couldn't use an existing silo on another property that the Tower Committee had previously requested T-Mobile to analyze as a possible location. According to the Committee's report, T-Mobile had previously asserted that the existing silo was not a viable option because the silo could not structurally support six to nine antennas (a prior proposal). The Tower Committee suggested that because the current application proposed only three antennas, the silo should be re-analyzed as a possible site for the revised application. T-Mobile again responded that the existing silo would not support the antennas, but provided no structural analysis to the Committee. Exhibit 49(a), p. 2. The Committee also queried T-Mobile about whether the revised location on the subject property met its coverage objectives. In answer to T-Mobile's affirmative response, the Committee noted, "[T]he RF maps do not support that claim." Exhibit 49(a), p. 2.

With regard to opportunities for co-location, the Committee found that the antennas located on the subject property met the stated coverage objectives for locating on the existing Dickerson monopole *"more than they meet the stated coverage objectives for the antennas on the Carlisle property."* Exhibit 49(a), p. 2 (emphasis supplied). In fact, according to the Committee, the RF maps for the Dickerson monopole and the subject property demonstrated that, "[a]ntennas on the Dickerson monopole, now compared to antennas on the silo, would better meet the coverage objective stated by T-Mobile's

engineer of providing ‘maximum coverage between areas where T-Mobile currently has on-air sites.’”

In addition to achieving the coverage area of the Dickerson monopole, the Committee concluded that the signal level improvements from Dickerson facility would provide a better connection with existing sites than could be attained from the Carlisle property silo. Exhibit 49(a), p.

3. Finally, the Committee noted:

Because the antennas on the silo shift the primary areas of signal improvement west compared to the antennas as were proposed on the monopole, a larger gap in coverage remains east of the Carlisle property along Mt. Ephraim Road. Consequently, since T-Mobile claimed that this site is also intended to minimize the number of antenna support facilities in this area, given the smaller improved coverage area to be served, antennas on the silo do not appear to accomplish that intent.

The minutes of the TFCG meeting reviewing the revised application reflect that the Tower Coordinator did agree with T-Mobile’s RF engineer that the revised location would improve coverage service to this area, especially north of the Carlisle property. However, he also stated that this was a different objective than originally described and that the burden of proof was on the applicant to show that this objective could not be met from the Dickerson monopole or the existing silo. Exhibit 49. A Committee member commented that the RF coverage maps for the revised application looked more like the coverage maps for the Dickerson monopole than for the coverage objectives represented by T-Mobile for the subject property. Exhibit 49. In addition, the Committee member commented that the silo site (1) only boosted in-building signal levels along a relatively small portion of Mt. Ephraim Road from in-vehicle coverage to in-building signal levels, (2) that it did not improve in-vehicle coverage along Mt. Ephraim Road beyond where it exists now, and (3) that it did not eliminate the existing lower signal levels along Barnesville Road. Exhibit 49.

Ultimately, the TFCG recommended approval of the facility conditioned upon T-Mobile’s reconsideration of using either the Dickerson monopole or a modified silo on the Savage Farm. Exhibit 49(a). The TFCG’s recommendation, reflected in the meeting minutes, also stated the

following:

In an effort to meet the Hearing Examiner's request for a response no later than July 15th, the TFCG decided to provide a recommendation based on the Tower Coordinator's recommendation and noted that the burden is on T-Mobile to provide the appropriate documentation to the Hearing Examiner as to why the existing structures cannot be used. Exhibit 49.

As noted, the Hearing Examiner kept the record open until July 29, 2011, to permit the parties to respond to the Tower Committee's report and recommendation. The Examiner received no further evidence from T-Mobile responding to the Tower Committee's report.

F. Community Response

The Montgomery Countryside Alliance submitted a letter opposing the application on the subject property at the revised location. Exhibit 22. Because of the visual impact on the rustic roads and Sugarloaf Mountain, a National Natural Landmark and, according to the Alliance, a documented historic landmark, the Alliance stated that, "[t]his proposed location continues to present conflict with the County's preservation programs and every effort to shift the site, co-locate elsewhere or utilize state of the art technology to promote harmony with rural aesthetics and community character should be undertaken." Exhibit 22. The Alliance also suggested relocating the site to the Savage Dairy Farm on the other side of Mt. Ephraim Road:

We would ask that if DAS technology is ruled out, that such a silo be associated with the Savage Dairy Farm located on the property opposite the proposed site. This location may better meet the applicant's coverage goals and address the need for the utmost in sensitivity for harmony with the surrounding landscape. The dairy farm has indicated that they would welcome the silo and that the income could help their working farm, one of the few remaining dairy operations in the County. Exhibit 22.

T-Mobile submitted two letters in support of the application. One was from an adjoining neighbor (Ex. 26) and one was from the owner of property located approximately 400 feet away (Ex. 27), T. 36-42.

III. SUMMARY OF HEARING

At the hearing, Petitioners called three witnesses, Ms. Hillorie Morrison, a T-Mobile project manager, Michael McGarity, the civil engineer who helped design the plans for the site, and Curtis Jews, T-Mobile's lead radio frequency engineer.

1. James Maurice Carlisle (T. 36-48):

Mr. Carlisle testified that he owns the subject property and he lives on another property approximately 500 feet from the subject property. His family originally purchased the farm in 1948, and it has been used for farming since that time. Currently, he rents the farm and it is used primarily to raise grain, corn and beans. T. 38. He was approached by T-Mobile to lease the farm and none of his neighbors have come to him to oppose the lease, other than the closest neighbors. In response to their problems with the original location, T-Mobile moved the tower approximately 1000 feet further from the road. As far as Mr. Carlisle knows, the neighbors no longer have a problem with the facility. T. 38. Mr. Carlisle submitted a letter from another adjoining neighbor in support of the application. T. 40. According to Mr. Carlisle, another adjoining property owner, Mr. Paul Baker, has no objection to the tower either. T. 44.

2. Michael McGarity (Tr. 48-66):

Michael McGarity, testified that he is the director of wireless services for Daft McCune Walker, an engineering and surveying consultant to T-Mobile. He has been working in the industry for 13 years and has worked on the design of over 1,000 cell tower sites. Mr. McGarity testified as an expert in civil engineering design of telecommunications facilities.

Mr. McGarity described the subject site and petitioner's proposal. The subject property is approximately 92 acres and is used for farming activities. The tower location is approximately in the center of the property, and is 1,300 feet from Mount Ephraim Road. Access will be via a driveway from Mt. Ephraim Road proceeding northwest along a gravel access road to a farm field area. The

area is surrounded by a large amount of trees or wooded area. The compound is proposed to be 50-feet by 50-feet and surrounded by a wooden board on board fence. T. 52. The tower is setback from the front property line by 830 feet, the western property line by 598 feet and from the eastern property line by 770 feet. Given that the shortest distance from the nearest property line is almost 600 feet, the application meets the required setbacks from the property lines. There is no off-site dwelling within three hundred feet of the proposed location, so the application meets that requirement as well.

According to Mr. McGarity, the interior of the compound will consist of a 10- by 20-foot concrete pad, T-Mobile's ground based equipment, and the 127-foot high silo design tower, which may range from between 16 to 18 feet in diameter. The antennas are on the exterior of the facility and will be painted to blend with the silo. The antennas proposed are approximately 10-12 inches in width and possibly 3-4 inches in depth. They will be flush mounted.

Mr. McGarity submitted an aerial photograph and marked the location of the property on the photograph. He stated that the facility would be somewhat close to an existing tree grouping north of the proposed site. A tree grouping to the south might also screen a portion of the facility.

On cross-examination, Mr. McGarity testified that T-Mobile did not request him to look at suitable sites other than those on the subject property. He was never presented with a location on the Savage Dairy Farm property.

2. Hillorie Morrison (Tr. 38-68):

Hillorie Morrison, works for Network Building and Consulting, and her firm acts as T-Mobile's agent for purposes of zoning. She qualified as an expert in land use planning and telecommunications zoning.

Ms. Morrison also introduced a January 22, 2010, report done by the Jeppesen Company that investigates whether the proposed telecom installation is in accordance with the FAA and FCC policies. Exhibit No. 32. Jeppesen concluded that FAA notice is not required, given the height of the tower, and

that marking and lighting is also not required. There will be no lighting at all on the facility except an emergency light down near the ground, attached to one of the equipment cabinets for a technician to service it in the dark.

Ms. Morrison further testified that when T-Mobile erects a new monopole, it does a visual test, using a balloon raised to the height of the proposed monopole. Visibility is examined at various points around the site. T-Mobile then simulates what the actual facility would look like based on the 127-foot height and the silo design of the facility. A map showing the locations of the balloon tests (Exhibit 17(e)) were already in the record of the case, as were the photographs of the balloon tests and the photograph simulations of the silo design (Exhibit 17). T-Mobile uses computer modeling to “drop in” an approximation of what the silo would look like based on the balloon tests. In this case, the simulations took into account the width of the silo, although T-Mobile does not yet have the exact specifications for the design. Some of the photographs along Barnesville and Mount Ephraim Roads showed telephone poles and lines which she estimated to be between 25 and 35 feet in height. These poles had multiple telephone lines running between them and are fairly close to each other. Because the exterior antennas are going to be painted a color similar to the silo, in her opinion they will blend in and not be noticeable from the points at which the pictures were taken. Because the setbacks into the parcel are so far, any points at which she could see the silo are so far away you couldn’t make out the antennas.

She also submitted Exhibit 36 into the record. That exhibit marks the proposed location, labeled as 7WAN540B with a red flag. The purple lines going to green flags on Exhibit 36 are showing the distance to T-Mobile’s existing on-air sites which serve as connecting sites to the proposed facility. T. 80. There is an on-air site approximately 2.85 miles away, one to the southeast which is approximately 2.25 miles away, one to the south that is approximately 3.21 miles away on Beallsville Road, and one that is 2.01 miles away in Dickerson. According to Ms. Morrison, the

TFCG Committee reviewed applications to place a structure on this property twice and determined that there was a coverage need for T-Mobile in the area. They also determined in 2009 that there were no existing structures on which T-Mobile could locate on an existing facility to meet its coverage needs. In 2009, T-Mobile had evaluated the Dickerson site, but it didn't meet their coverage needs. Therefore, in March 2010, the Committee issued a report recommending approval of a 150-foot pole on the subject property.

In Ms. Morrison's opinion, the petition is consistent with the master plans because the facility is located in a zone where telecommunication facilities are permitted by special exception and is sited in a way that minimizes to the extent feasible the visual impact on adjoining residential and agricultural properties. Were a silo used for agricultural use, it would be permitted by right in the zone. Theoretically, were it actually used for farming operations, a farmer could erect a silo as high as 170 feet.

Other than visual impacts, Ms. Morrison testified that there are no other impacts of the use. The facility is unmanned and is visited only once a month or two months for maintenance and repair with a small vehicle. There are no emissions or odors and no interference with others use of their properties. The primary impact is the visual impact which is mitigated here by the location's design and placement on the property. The compound will be hidden from view of the surrounding properties.

She submitted a tower air determination (Exhibit 38) indicating that the tower does not need to be lit under FAA regulations and therefore, T-Mobile does not propose to light the tower. She testified that the petition meets the general standards contained in Section 59-C-1.21 of the Zoning Ordinance. T-Mobile does not propose to build the facility as a working silo or grain bin because of safety concerns regarding the proximity of flammable grain to the electrical equipment. She agreed that T-Mobile would tear the tower down if the use is abandoned.

Ms. Morrison also submitted an affidavit from Mr. William O'Brien, real estate manager at T-Mobile, stating that T-Mobile will register its batteries in accordance with the County's hazmat program and Executive Regulation 1703. The silo is less than 155 feet, and so does not require a special justification to receive the special exception. T-Mobile is willing to place additional landscaping surrounding the compound in the event that is a condition of approval. Both the tower and the compound are designed to accommodate three carriers and T-Mobile agrees that no signs or illuminations will be permitted on the structure unless required by federal or local regulations.

3. Curtis Jews (Tr. 101-133):

Curtis Jews testified as an expert in Radio Frequency (RF) Engineering for T-Mobile. Mr. Jews is the RF lead engineer for T-Mobile. Mr. Jews introduced two coverage maps, Exhibit 43(a) showing current on-air coverage around the site and 43(b), showing current on-air coverage with the proposed site, 7WAN540B, activated. Green is in-building coverage, which is the coverage that one can expect inside of the home. Blue is in-vehicle coverage, and the yellow is the on-street coverage.

He testified that T-Mobile customers currently experience dropped calls and failed call attempts. T-Mobile's goal is to increase customers' confidence level that they will be able to make a phone call if needed and to enhance wireless internet service as well. Use of data (internet service) is increasing more than voice or telephone usage. Additionally, more people are making 911 calls from cell phones than land line phones.

Each existing on-air site typically has three sectors which may point in different directions based on T-Mobile's coverage objective. He pulled data on dropped calls, call attempts, and 911 calls from those antenna sectors which serve the proposed coverage area. For the 12-month period from February, 2010, to January, 2011, there were 5,000 911 calls, 12,000 dropped calls, and over 150,000 call attempts. If this site were approved, it would help collect the 911 calls, and reduce the percentage of dropped calls and failed call attempts.

Mr. Jews testified that T-Mobile commits to comply with its FCC license and FCC guidelines and that emission levels would be within the required federal guidelines. For new towers (as opposed to locating on existing buildings), these emission levels are hundreds to a thousand times below the FCC guidelines. He expects that would be the case here.

Mr. Jews compared the maps of projected coverage of the original application and the revised application. The original application provided a much larger, wider coverage footprint because of the increase in height. When asked by the Hearing Examiner as to whether T-Mobile would need another location in the area, Mr. Jews stated “[W]e do not have any plans at this time...but there may be plans in the future.” T. 115. The original plan would have provided more coverage, but service still would have been poor traveling north due to the terrain.

The coverage maps for the new site show an improvement in the green area immediately surrounding the facility. There is some additional in-vehicle coverage to the north.

On cross-examination, Mr. Jews testified that the number of 911 and dropped calls and call attempts could include multiple repeated attempts within a short period of time. He did not know the number of actual residences in the area. He reported the number of failed calls from each sector providing service to the proposed area. For 7WAN169C, Sector B, there were 1,055 E-911 attempts and 314 dropped calls. For 7WAN153B (A sector), there were 1,145 E-911 calls and 1,200 dropped calls. At 7WAN540A (Sector A) to the south, there were 616 E-911 call attempts and 323 dropped calls. To the southeast 7WAN562B (A and C Sectors), there were 836 E-911 and 2,427 dropped calls from the A sector and 1,296 E-911 and 8,606 dropped calls from the C Sector.

The Hearing Examiner asked Mr. Jews whether he could more specifically identify the number of dropped calls the proposed location would eliminate, he replied that T-Mobile attempts to provide a grade of service with fewer than 2% dropped calls. He also stated that he was “hoping” that the new location would reach that objective, but could not give an exact percentage.

On cross-examination, Mr. Jews testified it may be possible to achieve the same coverage objectives on other properties which were less than half a mile from the subject site, such as the Savage Dairy Farm, but he would have to know the more information on the height of the structure. Other than on potential site, a power plant, T-Mobile had not requested Mr. Jews to review any potential locations other than the two proposed locations on the subject property. T. 133-134.

4. Mr. Chris Kendrick (T. 131-140):

Mr. Kendrick stated that he was disappointed that T-Mobile had made no assessment of what the community considers to be a good faith proposal for an alternate location which they believe has the potential to satisfy all the same performance characteristics. He also was disappointed that T-Mobile had explored an alternate technology utilizing existing telephone poles, called DAS technology. The groups he represents believes that the petition is inconsistent with the County's master plan and thought they were working with T-Mobile to find a location that would be in better harmony than the area protected by the master plan and including extraordinary historic scenic resources of the Sugarloaf Mountain Valley. This location is unique. It was designated in 1969 as a national natural landmark and a documented historic landmark. It is an important destination for many in the Washington area.

The proximity of the proposed location to a designated rustic road dictates the need for additional sensitivity to the protected viewshed. It's very natural for one traveling along this section of Mount Ephraim from Dickerson toward the mountain to look directly in the direction of where T-Mobile proposes to place this tower. The community believes that more should be done to explore the possibility of shifting the location, co-locate elsewhere, or using alternative technology. The groups he represents requested that an effort to explore the potential of the Savage Dairy Farm be considered before granting this application.

IV. FINDINGS AND CONCLUSIONS

A special exception is a zoning device that authorizes certain uses provided that pre-set legislative standards are met, that the use conforms to the applicable master plan, and that it is compatible with the existing neighborhood. Each special exception petition is evaluated in a site-specific context because a given special exception might be appropriate in some locations but not in others. The zoning statute establishes both general and specific standards for special exceptions, and the Petitioners have the burden of proof to show that the proposed use satisfies all applicable general and specific standards. Technical Staff concluded that Petitioners will have satisfied all the requirements to obtain the special exception, if they comply with the recommended conditions (Exhibit 22).

Weighing all the testimony and evidence of record under a “preponderance of the evidence” standard (Code §59-G-1.21(a)), the Hearing Examiner concludes Petitioners have failed to meet their burden of proving a need for the facility and have failed to prove that the petition is consistent with the relevant master plans.

A. Standard for Evaluation

The standard for evaluation prescribed in Code § 59-G-1.2.1 requires consideration of the inherent and non-inherent adverse effects on nearby properties and the general neighborhood from the proposed use at the proposed location. Inherent adverse effects are “the physical and operational characteristics necessarily associated with the particular use, regardless of its physical size or scale of operations.” Code § 59-G-1.2.1. Inherent adverse effects, alone, are not a sufficient basis for denial of a special exception. Non-inherent adverse effects are “physical and operational characteristics not necessarily associated with the particular use, or adverse effects created by unusual characteristics of the site.” *Id.* Non-inherent adverse effects, alone or in conjunction with

inherent effects, are a sufficient basis to deny a special exception.

Technical Staff have identified seven characteristics to consider in analyzing inherent and non-inherent effects: size, scale, scope, light, noise, traffic and environment. For the instant case, analysis of inherent and non-inherent adverse effects must establish what physical and operational characteristics are necessarily associated with a telecommunications facility. Characteristics of the proposed telecommunications facility that are consistent with the “necessarily associated” characteristics of telecommunications facilities will be considered inherent adverse effects, while those characteristics of the proposed use that are not necessarily associated with telecommunications facilities, or that are created by unusual site conditions, will be considered non-inherent effects. The inherent and non-inherent effects thus identified must then be analyzed to determine whether these effects are acceptable or would create adverse impacts sufficient to result in denial.

Technical Staff described the following characteristics of a telecommunications facility as being inherently associated with the use (Exhibit 23, p. 22):

- (1) antennas installed on or within a support structure with a significant height;
- (2) a technical equipment area that may or may not be enclosed within a fence;
- (3) visual impacts associated with the height of the support structure;
- (4) radio frequency emissions;
- (5) a very small number of vehicular trips per month for maintenance.

The Hearing Examiner would add one additional inherent effect, provision of a back-up source of power to the characteristics described by Technical Staff. The inherent effects of a typical monopole telecommunications facility would generally have only a visual impact on the neighborhood, since it would be noiseless, unmanned and require only occasional servicing

Technical Staff identified several non-inherent adverse impacts associated with this particular application. These include the location of the property along two rustic roads and two Maryland Scenic Byways, the property’s location in the viewshed of Sugarloaf Mountain, and the Rustic Roads Functional Master Plan’s identification of the scenic views in the area. Exhibit 23, p. 22.

Technical Staff concluded that the petition's impact on the non-inherent adverse affect on the scenic views would be addressed if the silo design were changed to that of a grain bin more closely associated with the crop production than livestock operations. Technical Staff did not, however, have the benefit of the Tower Committee's report or Mr. Jews' testimony. Because the Hearing Examiner finds that T-Mobile has not met its burden of proof with regard to a need for the facility, as set forth more fully below, leaving the possibility that impact of even the revised silo design is unnecessary; the non-inherent impact on the surrounding scenic views justifies denial of the application.

B. General Conditions

The general standards for a special exception are found in Zoning Code §59-G-1.21(a). The Technical Staff report, the approval of the Transmission Facilities Coordinating Group, the exhibits in this case and the testimony at the hearing provide ample evidence that the general standards would be satisfied in this case.

Sec. 59-G-1.21. General conditions.

§5-G-1.21(a) *-A special exception may be granted when the Board, the Hearing Examiner, or the District Council, as the case may be, finds from a preponderance of the evidence of record that the proposed use:*

(1) Is a permissible special exception in the zone.

Conclusion: A telecommunications facility is a permissible special exception in the RDT Zone, pursuant to Code § 59-C-9.3(f).

(2) Complies with the standards and requirements set forth for the use in Division 59-G-2. The fact that a proposed use complies with all specific standards and requirements to grant a special exception does not create a presumption that the use is compatible with nearby properties and, in itself, is not sufficient to require a special exception to be granted.

Conclusion: For the reasons set forth in Section IV.C of this Report, below, the proposed use does not comply with the specific standards set forth in § 59-G-2.58 for a telecommunications facility.

- (3) *Will be consistent with the general plan for the physical development of the District, including any master plan adopted by the Commission. Any decision to grant or deny special exception must be consistent with any recommendation in a master plan regarding the appropriateness of a special exception at a particular location. If the Planning Board or the Board's technical staff in its report on a special exception concludes that granting a particular special exception at a particular location would be inconsistent with the land use objectives of the applicable master plan, a decision to grant the special exception must include specific findings as to master plan consistency.*

Conclusion: Petitioners' property is located in the area subject to the 1980 *AROS Master Plan* and the 1996 *Rustic Roads Functional Master Plan*. The pertinent portions of these plans are set forth in Section II.D of this Report. The predicate for the recommendations of approval by both the Rustic Roads Advisory Committee and Technical Staff was that T-Mobile demonstrate a need for the facility, thus minimizing further impacts on the scenic views of Sugarloaf Mountain, the rustic roads, and agricultural operations. Technical Staff advised that the Petition "can" be consistent with the AROS plan "*if it is determined that coverage objectives are met so that a second facility will not be needed...*" (emphasis supplied). Similarly, Technical Staff concluded that the Petition was consistent with the RRFMP provided that "the proposed 127-foot silo provides sufficient coverage for at least three carriers such that a second tower will not be needed within the viewsheds identified in the Plan". Exhibit 23, p. 13. The RRAC stated that, due to the impact on the scenic views in the vicinity, the tower must meet all coverage objectives for the area and "a second tower must be avoided".

The Tower Committee's report clearly evidences that the proposed location will *not* meet T-Mobile's stated coverage object for the site, although there may be some *de minimis* improvement in

service to the area. Significantly, the TCFG found that “since T-Mobile claimed that this site is also intended to minimize the number of antenna support facilities in this area, given the smaller improved coverage area to be served, antennas on the silo do not appear to accomplish that intent.” Exhibit 49(a). Nor did T-Mobile’s RF engineer, Mr. Jews, rule out the possibility of a second application for a tower in the area. T. 115. Whether the Board could potentially require T-Mobile to provide all of its coverage needs at a single location in order to be consistent with the master plan is a question for another day. More importantly for this case, the Tower Committee’s finding that the revised location does not even operate to *minimize* the number of facilities in the area, combined with Mr. Jews’ acknowledgement that more towers may be necessary in the future and the *de minimis* improvement in existing coverage identified in the Tower Committee’s report, results in the possibility that the application does not preserve farmland or scenic views. In addition, T-Mobile submitted no justification to the Tower Committee or the Hearing Examiner as to whether it could use alternative existing structures, thus avoiding these impacts entirely. Because T-Mobile has not shown by a preponderance of evidence, or indeed any evidence, that it is not possible to achieve the same coverage result on existing structures, or that the location will at least minimize the need for future facilities, the Hearing Examiner finds that this Petition is not consistent with the AROS Plan or the RRFMP.

(4) *Will be in harmony with the general character of the neighborhood considering population density, design, scale and bulk of any proposed new structures, intensity and character of activity, traffic and parking conditions, and number of similar uses.*

Conclusion: The Hearing Examiner agrees with Technical Staff that the silo design is an improvement over the 150-foot monopole close to Mount Ephraim Road as originally submitted and reduces the impact on neighboring viewshed, as demonstrated by the viewshed analysis performed by Technical Staff. Exhibit 23, pp. 12-13. Staff recommended the facility be designed as a grain

bin, more commonly associated with crop production, because grain bins may normally be as tall as the proposed silo design and are commonly associated with raising crops. According to Technical Staff, design as a grain bin would permit the antennas to be mounted at the same level as the proposed in the Petition and recommended that the facility be agriculturally functional. Ex. 23, p. 8.

At the public hearing, T-Mobile presented evidence that the safety of the facility may be compromised if actually used for agricultural operations because of the proximity of the flammable grain to the electrical equipment. T. 92. The Hearing Examiner accepts T-Mobile's evidence that requiring the facility to actually function as an agricultural use could jeopardize safety, and therefore, does not find that agricultural function should be mandated in order for the facility to be in harmony with the surrounding area. While T-Mobile presented no evidence as to why the facility could not be designed as a grain bin which is normally associated with crop production, testimony at the hearing indicated that the facility was located toward the center of the property approximately 1,300 feet from Mount Ephraim Road. T. 52. In addition, T-Mobile will remove the facility (as required by Section 59-G-2.58 of the Zoning Ordinance) once its use has ceased. T. 90. Because the facility will not actually function to support crop farming, the Hearing Examiner finds the distinction between a grain bin and a silo less compelling, especially considering that Technical Staff also advises that there are a "number of silos on neighboring farms" and that the silo design "would be more visually consistent with the surrounding area than a monopole." Exhibit 23, p. 7. As a result, the Hearing Examiner finds that density, scale and bulk of the facility will be in harmony with the surrounding area.

(5) Will not be detrimental to the use, peaceful enjoyment, economic value or development of surrounding properties or the general neighborhood at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.

Conclusion: Technical Staff found the telecommunications facility would not be detrimental to the

use, peaceful enjoyment, economic value or development of surrounding properties or the general neighborhood if redesigned as a grain bin more typically associated with crop production. Exhibit 23. While the Hearing Examiner agrees with Technical Staff that the use will meet this standard, although she finds that the standard may be met through the use of a silo design.

- (6) *Will cause no objectionable noise, vibrations, fumes, odors, dust, illumination, glare, or physical activity at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.*

Conclusion: The tower will have no lights. Technical Staff found that the special exception would cause no objectionable noise, vibrations, fumes, odors, dust, illumination, glare or physical activity at the subject site. Exhibit 23, p. 7. Thus, the evidence supports the conclusion that the telecommunications facility will cause no objectionable noise, vibrations, fumes, odors, dust, illumination, glare, or physical activity, and the Hearing Examiner so finds.

- (7) *Will not, when evaluated in conjunction with existing and approved special exceptions in any neighboring one-family residential area, increase the number, intensity, or scope of special exception uses sufficiently to affect the area adversely or alter the predominantly residential nature of the area. Special exception uses that are consistent with the recommendations of a master or sector plan do not alter the nature of an area.*

Conclusion: Technical Staff found that the area was primarily agricultural with a small number of residential lots along Mt. Ephraim Road. It found that the Petition, if approved, would not increase the number, intensity or scope of special exception uses to an extent that it would adversely affect the character of the area. Having no evidence to the contrary, the Hearing Examiner agrees and so finds.

- (8) *Will not adversely affect the health, safety, security, morals or general welfare of residents, visitors or workers in the area at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.*

Conclusion: The evidence supports the conclusion that the proposed use would not adversely affect the health, safety, security, morals or general welfare of residents, visitors or workers in the area at

the subject site. Moreover, the federal Telecommunications Act of 1996, 47 USC §332(c)(7)(B)(iv), provides that:

No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the [Federal Communications] Commission's regulations concerning such emissions.

Petitioners' radio frequency (RF) expert, Curtis Jews, testified that if this site is approved, T-Mobile commits to complying with FCC rules and its license regarding radio frequency emissions. T. 112. Petitioners have also agreed to comply with all applicable hazmat regulations governing the site, which is recommended as a condition should the Board of Appeals approve the application. T. 93-94. The Hearing Examiner therefore concludes that the proposed telecommunications facility will not adversely affect the health, safety, security, morals or general welfare of residents, visitors or workers in the area.

(9) Will be served by adequate public services and facilities including schools, police and fire protection, water, sanitary sewer, public roads, storm drainage and other public facilities.

Conclusion: The evidence supports the conclusion that the proposed special exception would be adequately served by the specified public services and facilities, to the extent they are needed for this type of use.

- (A) *If the special exception use requires approval of a preliminary plan of subdivision, the Planning Board must determine the adequacy of public facilities in its subdivision review. In that case, approval of a preliminary plan of subdivision must be a condition of the special exception.*
- (B) *If the special exception:*
 - (i) does not require approval of a new preliminary plan of subdivision; and*
 - (ii) the determination of adequate public facilities for the site is not currently valid for an impact that is the same as or greater than the special exception's impact;**then the Board of Appeals or the Hearing Examiner must determine the adequacy of public facilities when it considers the*

special exception application. The Board of Appeals or the Hearing Examiner must consider whether the available public facilities and services will be adequate to serve the proposed development under the Growth Policy standards in effect when the application was submitted.

Conclusion: Technical Staff advises that the special exception sought in this case would not require approval of a preliminary plan of subdivision. Exhibit 23, p. 13. Therefore, the Board must consider whether the available public facilities and services will be adequate to serve the proposed development under the applicable Growth Policy standards. These standards include Local Area Transportation Review (LATR) and Policy Area Mobility Review (PAMR). Technical Staff did do such a review, and concluded that the proposed use would add no additional trips during the peak-hour weekday periods. Thus, the requirements of the LATR and PAMR are satisfied without a traffic study. By its nature, the site requires no school, water or sewer services. Technical Staff concluded, as does the Hearing Examiner, that the instant petition meets all the applicable Growth Policy standards. Exhibit 23, p. 25.

- (C) *With regard to public roads, the Board or the Hearing Examiner must further find that the proposed development will not reduce the safety of vehicular or pedestrian traffic.*

Conclusion: There is no evidence in this case that the proposed use would adversely affect the safety of vehicular or pedestrian traffic. Technical Staff found that the proposed facility would have “no impact upon schools, police and fire protection, water and sewer, public roads, storm drainage, or other public facilities. Exhibit 23, p. 25. The Hearing Examiner agrees with this conclusion and so finds.

C. Specific Standards

Sec. 59-G-2.58. Telecommunication facility

- (a) Any telecommunication facility must satisfy the following standards:*

- (1) *A support structure must be set back from the property line as follows:*
- A. *In agricultural and residential zones, a distance of one foot from the property line for every foot of height of the support structure.*
 - B. *In commercial and industrial zones, a distance of one-half foot from property line for every foot of height of the support structure from a property line separating the subject site from commercial or industrial zoned properties, and one foot for every foot of height of the support structure from residential or agricultural zoned properties.*
 - C. *The setback from a property line is measured from the base of the support structure to the perimeter property line.*
 - D. *The Board of Appeals may reduce the setback requirement to not less than the building setback of the applicable zone if the applicant requests a reduction and evidence indicates that a support structure can be located on the property in a less visually obtrusive location after considering the height of the structure, topography, existing vegetation, adjoining and nearby residential properties, if any, and visibility from the street.*

Conclusion: Zoning Ordinance §59-G-2.58(a)(1)(A) requires, in a residential or agricultural zone, that the cell tower be set back a distance of one foot from the property line for every foot of height of the support structure. Given the total height of 127 feet for the cell tower, a 127-foot setback from each property line is required. This setback is easily met on all sides.

- (2) *A support structure must be set back from any off-site dwelling as follows:*
- A. *In agricultural and residential zones, a distance of 300 feet.*
 - B. *In all other zones, one foot for every foot in height.*
 - C. *The setback is measured from the base of the support structure to the base of the nearest off-site dwelling.*
 - D. *The Board of Appeals may reduce the setback requirement in the agricultural an[sic] residential zones to a distance of one foot from an off-site residential building for every foot of height of the support structure if the applicant requests a reduction and evidence indicates that a support structure can be located in a less visually obtrusive location after considering the height of the structure, topography, existing vegetation, adjoining and nearby residential properties, and visibility from the street.*

Conclusion: The subject site is in an agricultural zone, so the 300-foot setback requirement applies.

T-Mobile's civil engineer testified that the application meets this requirement because there is no

dwelling located on the property and the shortest setback from the property line is almost 600 feet. T.

54. Technical Staff advises that the closest off-site dwelling is approximately 1,100 feet from the base of the structure. Exhibit 23, p. 27. Based on this evidence, the Hearing Examiner finds that this standard is met.

(3) The support structure and antenna must not exceed 155 feet in height, unless it can be demonstrated that additional height up to 199 feet is needed for service, collocation, or public safety communication purposes. At the completion of construction, before the support structure may be used to transmit any signal, and before the final inspection, pursuant to the building permit, the applicant must certify to the Department of Permitting Services that the height and location of the support structure is in conformance with the height and location of the support structure, as authorized in the building permit.

Conclusion: The support structure will be 127 feet in height, and the antenna will be mounted at approximately 120 feet. Thus, the proposal meets the requirement of being less than 155 feet. Should the Board of Appeals approve the application, a condition has been proposed in Part V of this report to ensure compliance with the certification requirement.

(4) The support structure must be sited to minimize its visual impact. The Board may require the support structure to be less visually obtrusive by use of screening, coloring, stealth design, or other visual mitigation options, after considering the height of the structure, topography, existing vegetation and environmental features, and adjoining and nearby residential properties. The support structure and any related equipment buildings or cabinets must be surrounded by landscaping or other screening options that provide a screen of at least 6 feet in height.

Conclusion: Technical Staff found that the silo design (although preferably a grain bin design), the proposed location 1,300 feet from the nearest road, the proximity of existing mature trees on the property minimized the visual impact of the facility. The Hearing Examiner agrees that the silo design also acts to better mitigate the visual impact of the previously proposed monopole. Thus, the Hearing Examiner finds that this standard has been met.

(5) *The property owner must be an applicant for the special exception for each support structure. A modification of a telecommunications facility special exception is not required for a change to any use within the special exception area not directly related to the special exception grant. A support structure must be constructed to hold no less than 3 telecommunications carriers. The Board may approve a support structure holding less than 3 telecommunications carriers if:*

(A) requested by the applicant and a determination is made that collocation at the site is not essential to the public interest; and

(B) the Board decides that construction of a lower support structure with fewer telecommunications carriers will promote community compatibility. The equipment compound must have sufficient area to accommodate equipment sheds or cabinets associated with the telecommunications facility for all the carriers.

Conclusion: The property owner, J. Maurice Carlisle, is a co-petitioner. The application has been revised to accommodate three carriers both in number of antennas and in the size of the compound. Exhibit 23. The Hearing Examiner finds this requirement has been met.

(6) *No signs or illumination are permitted on the antennas or support structure unless required by the Federal Communications Commission, the Federal Aviation Administration, or the County.*

Conclusion: No signs or illumination are proposed, except the two square foot sign required by subsection (8), below.

(7) *Every freestanding support structure must be removed at the cost of the owner of the telecommunications facility when the telecommunications facility is no longer in use by any telecommunications carrier for more than 12 months.*

Conclusion: The Petitioner has agreed to this provision and, if approved, the Hearing Examiner recommends placing a condition to this effect on the grant of the special exception.

(8) *All support structures must be identified by a sign no larger than 2 square feet affixed to the support structure or any equipment building. The sign must identify the owner and the maintenance service provider of the support structure or any attached antenna and provide the telephone number of a person to contact regarding the structure. The sign must be updated and the Board of Appeals notified within 10 days of any change in ownership.*

Conclusion: The applicant agrees to this requirement and, should the Board grant the special

exception, a condition so stating is recommended in Part V of this report.

(9) *Outdoor storage of equipment or other items is prohibited.*

Conclusion: No outdoor storage of equipment is proposed. Equipment will be enclosed as described elsewhere in this report.

(10) *Each owner of the telecommunications facility is responsible for maintaining the telecommunications facility, in a safe condition.*

Conclusion: Petitioners have agreed to maintain the facility in a safe condition, and a condition to this effect is recommended in Part V below.

(11) *The applicants for the special exception must file with the Board of Appeals a recommendation from the Transmission Facility Coordinating Group regarding the telecommunications facility. The recommendation must be no more than 90 days old, except that a recommendation issued within one year before June 22, 2010, must be accepted for one year from the date of issuance. The recommendation of the Transmission Facility Coordinating Group must be submitted to the Board at least 5 days before the date set for the public hearing.*

Conclusion: Technically, this requirement has been met, because the TCFG did issue a recommendation for the facility. The TCFG recommended approval of the revised application, subject to the condition that T-Mobile reconsider use of the existing monopole in Dickerson or use of the existing silo or modified silo on the Savage Farm. It also noted that the burden of proof is on the applicant to provide sufficient information to the Board of Appeals justifying the need for the facility. At the public hearing, T-Mobile's radio frequency engineer testified that he had not been asked by T-Mobile to review any site outside of the subject property. Although accorded the opportunity to respond to the Tower Committee's July 13, 2011, recommendation, T-Mobile did not provide any additional information regarding co-location possibilities. Therefore, while the Tower Committee did recommend approval, absent fulfillment of Committee's conditions of approval, the Hearing Examiner has no foundation to find their recommendation of approval a mandate that she or

the Board recommend approval as well.

(12) The Board must make a separate, independent finding as to need and location of the facility. The applicant must submit evidence sufficient to demonstrate the need for the proposed facility.

Conclusion: T-Mobile submitted evidence through its RF engineer that the proposed location would result in some increase in the coverage area and capacity of the surrounding sites, with which the Tower Committee agreed. The revised propagation maps (Exhibits 43(a) and (b)) even to the untrained eye (as characterized by Technical Staff), clearly demonstrate that the coverage improvement is significantly less than the original proposal for a 150-foot monopole.

Both Tower Committee Reports in this case (i.e., from March 10, 2010 and July 13, 2010) reveal that T-Mobile had, in 2009, looked at locating an antenna on an existing monopole in Dickerson. The Tower Committee recommended approval of the original application for a monopole, ruling out the Dickerson facility as a co-location option because “T-Mobile’s coverage objectives have changed.” Exhibit 8.

During the Committee’s review of the revised application, T-Mobile represented to the Committee that its coverage objectives for this facility had not changed, but the Committee found that “The RF maps do not support that claim”. Instead, the Committee concluded that the revised application would not meet T-Mobile’s stated coverage objectives and, in fact, more closely resembled the stated coverage objectives for the Dickerson facility. Not only did the revised application not meet T-Mobile’s stated objectives, the Committee found that antennas on the Dickerson monopole would provide a much larger area of coverage with in-building signal level and would better provide maximum coverage between T-Mobile’s existing on-air sites. Nor did the Committee find that the subject location would minimize the number of antenna support facilities in the area because of the smaller coverage area. The Committee also indicated that T-Mobile never submitted documentation of its claim that it could not use the silo or modified silo on the Savage

Dairy Farm for structural reasons, nor did it provide the Committee with any documentation why the Dickerson facility could not provide the same coverage as the proposed site.

The minutes of the meeting during which the Committee reviewed the revised application reveal the same issues. Although at one point T-Mobile did articulate a different coverage objective reflecting the improvements to service shown on the propagation maps, Committee members noted that the propagation maps indicated that the coverage objectives were more aligned with those of the Dickerson monopole. Without more information on the possibility of locating a facility on existing structures, the committee recommended approval, subject to the condition that T-Mobile reconsider evaluating the possibility of locating an antenna on the existing silos on Savage Dairy Farm or the Dickerson monopole. In doing so, the minutes reflect that the Committee provided a recommendation based on the Tower Coordinator's recommendation and "noted that the burden is on T-Mobile to provide the appropriate documentation to the Hearing Examiner as to why the existing structures cannot be used." Although given an opportunity to do so, T-Mobile has chosen not to submit any additional evidence in this case and T-Mobile's RF engineer testified that he had not been asked by T-Mobile to evaluate any location outside of the subject property that would serve its stated coverage objectives.

Given this evidence, the Hearing Examiner does not find, by a preponderance of the evidence, that there is a need for the facility. Even though the propagation maps for the revised application show a small improvement in coverage in the area, a finding of need must include an analysis of whether existing structures cannot be used in lieu of constructing an additional tower.²

² Emergency Bill 5-96 first established the mandate to coordinate the construction of cell tower within the County. Suggested amendments to the bill as introduced included adding the phrase "at that location" after the bill's original language requiring the Committee to "advise any land use agency or land-owning agency on the need for any telecommunications transmission facility..." Memorandum from Michael Faden to the County Council regarding Emergency Bill 5-96, dated March 12, 1996. According to Council Staff, the amendment was intended to clarify that "this

T-Mobile has presented no documented evidence, either to the Committee or to the Hearing Examiner, why it cannot accomplish the small increase in coverage shown on the propagation maps in this case on other facilities, especially considering the Committee's conclusion that the Dickerson coverage objectives more closely resemble the propagation maps in this case. For these reasons, the Hearing Examiner finds that Petitioners have failed to prove there is a need for the facility, and therefore, recommends denial of the application.

(b) Any telecommunications facility special exception application for which a public hearing was held before November 18, 2002 must be decided based on the standards in effect when the application was filed.

Conclusion: Not applicable.

(c) Any telecommunications facility constructed as of November 18, 2002 may continue as a conforming use.

Conclusion: Not applicable.

D. Additional Applicable Standards

Section 59-G-1.23. General development standards.

(a) Development Standards. Special exceptions are subject to the development standards of the applicable zone where the special exception is located, except when the standard is specified in Section G-1.23 or in Section G-2.

Conclusion: This petition falls under the exception because Zoning Ordinance §59-G-2.58 specifies the development standards for telecommunications facilities. As discussed above, the proposed use meets those standards.

review process is intended to analyze the most appropriate location for a telecommunications transmission facility among available locations, rather than the economic or technical reasons for building the facility...In staff's view, the "need at that location" is directed to questions such as whether a nearby alternative site or facility would be equally suitable." *Ibid.* To read the legislation without this requirement would be to undermine the entire purpose of the legislation—to coordinate and minimize the number of cell phone towers needed to provide service in the County.

(b) Parking requirements. Special exceptions are subject to all relevant requirements of Article 59-E.

Conclusion: Technical Staff did not recommend any parking for the proposed facility because it will require only one or two service visits per month.

(c) Minimum frontage. In the following special exceptions the Board may waive the requirement for a minimum frontage at the street line if the Board finds that the facilities for ingress and egress of vehicular traffic are adequate to meet the requirements of section 59-G-1.21:

* * *

(5) Public utility buildings and public utility structures, including radio and T.V. broadcasting stations and telecommunication facilities.

Conclusion: No waiver is needed because the subject site is located on a 92-acre property, which has more than adequate frontage. In any event, the facilities for ingress and egress of vehicular traffic are adequate to meet the requirements of Section 59-G-1.21.

(d) Forest conservation. If a special exception is subject to Chapter 22A, the Board must consider the preliminary forest conservation plan required by that Chapter when approving the special exception application and must not approve a special exception that conflicts with the preliminary forest conservation plan.

Conclusion: According Technical Staff, the property is exempt from submitting a forest conservation plan (Exhibit 23, p. 14).

(e) Water quality plan. If a special exception, approved by the Board, is inconsistent with an approved preliminary water quality plan, the applicant, before engaging in any land disturbance activities, must submit and secure approval of a revised water quality plan that the Planning Board and department find is consistent with the approved special exception. Any revised water quality plan must be filed as part of an application for the next development authorization review to be considered by the Planning Board, unless the Planning Department and the department find that the required revisions can be evaluated as part of the final water quality plan review.

Conclusion: This section pertains only to sites in special protection areas, where water quality plans are required. The Technical Staff report does not advise that the facility is located within a special protection area, therefore, the Hearing Examiner finds that this standard has been met.

(f) *Signs. The display of a sign must comply with Article 59-F.*

Conclusion: As indicated earlier in this report, the only sign on the facility will be the two square foot sign required by the special exception.

(g) *Building compatibility in residential zones. Any structure that is constructed, reconstructed or altered under a special exception in a residential zone must be well related to the surrounding area in its siting, landscaping, scale, bulk, height, materials, and textures, and must have a residential appearance where appropriate. Large building elevations must be divided into distinct planes by wall offsets or architectural articulation to achieve compatible scale and massing.*

Conclusion: Inapplicable. The subject site is in agricultural zone, not a residential zone.

(h) *Lighting in residential zones. All outdoor lighting must be located, shielded, landscaped, or otherwise buffered so that no direct light intrudes into an adjacent residential property. The following lighting standards must be met unless the Board requires different standards for a recreational facility or to improve public safety:*

(1) *Luminaires must incorporate a glare and spill light control device to minimize glare and light trespass.*

(2) *Lighting levels along the side and rear lot lines must not exceed 0.1 foot candles.*

Conclusion: Inapplicable. The subject site is in agricultural zone, not a residential zone.

V. ALTERNATIVE CONDITIONS OF APPROVAL

Should the Board of Appeals' determine that there is a need for the facility and that it is consistent with the AROS and Rustic Road master plans, the Hearing Examiner recommends that the Board's approval be subject to the following conditions:

1. There must be no antenna lights unless required by the Federal Communications Commission, the Federal Aviation Administration, or the County.
2. There must be no outdoor storage of equipment, except equipment specified in the Site Plan.
3. Each owner of the telecommunications facility is responsible for maintaining the facility in a safe condition.
4. The facility shall be available for co-location of up to three carriers.

5. The telecommunications facility must be removed at the cost of the owner of the telecommunications facility when the facility is no longer needed.
6. The Petitioners shall be bound by all of the exhibits of record, and by the testimony of their witnesses and the representations of counsel identified in this report.
7. At the completion of construction, before the support structure may be used to transmit any signal, and before the final inspection pursuant to the building permit, the Petitioners must certify to the Department of Permitting Services that the height and location of the support structure is in conformance with the height and location of the support structure as authorized in the building permit.
8. The telecommunication facility must display a contact information sign, no larger than two square feet, affixed to the outside of the equipment enclosure. This sign must identify the owner and the maintenance service provider and provide the telephone number of a person to contact regarding the installation. The sign must be updated and the Board of Appeals notified within 10 days of any change in ownership.
9. Petitioners must obtain a Hazmat Use Permit for the subject site before commencing operations.
10. Petitioners must obtain and satisfy the requirements of all licenses and permits, including but not limited to building permits and use and occupancy permits, necessary to occupy the special exception premises and operate the special exception as granted herein. Petitioners shall at all times ensure that the special exception use and the entire premises comply with all applicable codes (including but not limited to building, life safety and handicapped accessibility requirements), regulations, directives and other governmental requirements.

VI. RECOMMENDATION

Based on the foregoing analysis, I recommend that Petition No. S-2800 for a special exception to construct and operate a telecommunications facility at 22730 Mt. Ephraim Road, Dickerson, Maryland, be DENIED.

Dated: August 29, 2011

Respectfully submitted,

Lynn A. Robeson
Hearing Examiner